

**Savannah River Site
Citizens Advisory Board
Meeting Minutes
May 24-25, 2010
Savannah, GA**

Monday, May 24, 2010, Attendance

SRS CAB Members

Dr. Emile Bernard
Tabitha Barrett
Manuel Bettencourt
Dr. Don Bridges
Ed Burke
Art Dombay
Kathe Golden
Judith Greene-McLeod
Dr. Rose Hayes
Dr. Kuppuswamy Jayaraman
Ranowul Jzar
Madeleine Marshall
Joe Ortaldo
Dr. Marolyn Parson
John Snedeker
Dr. Jerry Wadley
Sarah Watson

Agency Liaisons

Al Frazier, GADNR
Karen Guevara, DOE-SR
Kyle Bryant, EPA-4

Regulators

Kim Newell, SCDHEC
Van Keisler, SCDHEC
Shelly Wilson, SCDHEC
Rolando Bascumbe, EPA-4
Brian Thompson, EPA-4

Contractors

Scott Doss, AAVS
Clay Miller, AAVS

Nancy Bethurem, SRR
Sonny Goldston, SRNS
Jeannette Hyatt, SRNS
Shelia McFalls, SRNS
Paul Sauerborn, SRNS
Bill Brizes, V3T
Jenny Freeman, V3T
Aaron Stevens, V3T
Erica Williams, V3T

DOE/Others

Susan Mason, DOE-HQ
Patrick McGuire, DOE-SR
Becky Craft, DOE-SR
Gerri Flemming, DOE-SR
Jim Folk, DOE-SR
Ray Hannah, DOE-SR
Brian Hennessey, DOE-SR
Wade Whitaker, DOE-SR

Stakeholders

Melvyn Galin
Margo Musick-V3T
Karen Patterson
Frank Redmond-Sen. Isaakson's Office

Ms. Karen Guevara, DOE, served as the Deputy Designated Federal Official (DDFO). Ms. Jenny Freeman served as Meeting Facilitator.

The Facilitator reviewed the ground rules, meeting procedures, and the agenda. The Facilitator welcomed Ms. Susan Mason, from DOE Headquarters.

SRS CAB members Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyee Vereen and Alex Williams were unable to attend.

Strategic and Legacy Management Committee - Jerry Wadley, Chair

CAB member Jerry Wadley introduced himself and his two vice chairs, Madeleine Marshall and Marolyn Parson. He stated there are four open recommendations, and the Committee is recommending that all four recommendations be closed.

CAB member Jerry Wadley stated there was a Committee meeting held on April 20, 2010 where the draft recommendation was read with preliminary approval given by the Committee. He stated staff and EM have

suggested the recommendation be submitted as a letter as opposed to a recommendation. He stated after polling the Committee and many members of the Board, it was decided to go ahead as a recommendation. He explained in detail the precedent set in 2008 regarding the decision to proceed in recommendation form. He stated for 2010 tours, there were 23 tours with a total of 1150 seats. He stated registration for the entire year was completed in 48 hours. He stated the possibility of opening up funding to a private organization to possibly make the funds available through the Recovery Act.

CAB member Jerry Wadley summarized the recommendation. He stated the recommendation recommends that DOE formulate a strategy to increase the number and scope of on-site public tours for 2010 and beyond, and consider privatizing the tours. He referred to the request that some tours be offered on weekends to accommodate students and the working public. He stated the recommendation includes offering an alternate registration method on a limited basis.

CAB member Emile Bernard asked about the statute pertaining to the decision to go forth as a recommendation as opposed to a letter. He stated his understanding is the statute overrides the work plan. CAB member Jerry Wadley stated there is precedence to that effect. CAB member Emile Bernard requested a copy of the statute.

CAB member Joe Ortaldo stated he supports the recommendation, and suggested dropping the privatization issue. CAB member Manuel Bettencourt stated he would be in favor of dropping the privatization issue if a suggestion were made that DOE consider alternatives other than internal control. He stated the restraint appears to be the internal resources. CAB member Marolyn Parson stated the recommendation could suggest either privatizing or other possibilities. She stated she supports this recommendation. She referred to a past presentation regarding the tours, and stated the interviews conducted afterwards were very telling.

CAB member Ed Burke stated the recommendation could be broader, and suggested including "consider other options." CAB member Jerry Wadley stated he would craft that language.

CAB member Kathe Golden stated she supports the recommendation, and suggested the third paragraph in the background section be revised for readability purposes.

CAB member Rose Hayes stated the idea of having more tours and how to do it are two separate issues. She stated there could be some soft language included regarding resources.

Ms. Karen Patterson applauded the CAB for going green. She stated she received her public notice of the meeting, which included the agenda, but not the draft recommendations. She stated in the past draft recommendations had been made available to the public. Ms. Gerri Flemming stated it was not a change, nor an oversight. She stated it was decided to work from the screen and everyone would see the final recommendation at the same time. She apologized if it caused any inconvenience and stated copies would be made available.

CAB member Jerry Wadley stated there were no other action items.

CAB member Judith Greene-McLeod asked about the closing of four recommendations at one time. CAB member Jerry Wadley stated he reviewed them with CAB member Madeleine Marshall who stated the recommendations were satisfied and ready to be closed out.

Facilities Disposition and Site Remediation Committee - Kuppuswamy Jayaraman, Chair

CAB member Kuppuswamy Jayaraman stated his Committee addresses the remediation of contaminated areas at the Savannah River Site as well as the various types of ground water and surface water contamination. He stated the Committee deals with issues related to the Federal Facility Agreement, risk management and risk assessment, the regulatory processes, and other crosscutting issues that relate to environmental restoration. He stated the Committee also follows the deactivation and decommissioning actions taken to reduce the risks and costs following the shut down of an industrial, radioactive, or nuclear facility. He stated the Vice Chair of the committee is Ranowul Jzar. He introduced his committee members: Tabitha Barrett, Emile Bernard, Ric Castagna, Elizabeth Skyve Vereen and Madeleine Marshall.

CAB member Kuppuswamy Jayaraman stated there was a committee meeting on April 20, 2010 where there were three presentations, including subjects such as the FFA, the R-Area Operable Unit, and P-Area Operable Unit.

CAB member Kuppuswamy Jayaraman introduced Mr. Ray Hannah and Mr. Brian Hennessey.

Presentation - P-Area Operable Unit Update - Mr. Ray Hannah, DOE-SR

Mr. Ray Hannah introduced himself as a Federal Project Director, with one of his projects being the P-Area Operable Unit. He outlined his presentation, including background, status, scope, strategy, accomplishments, as well as conclusions.

Mr. Hannah reviewed the area completion approach, and stated they try to complete each area and address the waste units holistically. He stated they not only go through the building facility deactivation and decommissioning, but address the waste units as well. He stated they have completed T-Area to date, and are close to finishing up M-Area, with mobilization in D-Area, R-Area, and P-Area.

Mr. Hannah stated the P-Area Operable Unit was operational from the early 50s through the early 90s. He stated it comprises over 100 acres and at one time had over 40 facilities and structures in the area. He stated the P-Area Operable Unit is the first reactor area to be addressed under the Area Completion Approach. He stated they are simultaneously addressing R-Area as well.

Mr. Hannah discussed the objectives, such as the remediation of all the waste units in the area, an in-situ decommissioning of the reactor, as well as safety for industrial reuse at completion. He displayed an overview of the P-Area Operable Unit and discussed the time line as well as milestones that have been reached.

Mr. Hannah discussed the scope of the P-Area Operable Unit, including the P-Area Cask Car Railroad Tracks, a soil contamination area that has been completed, PSA-3A and 3B, which are potential source areas, P007 Outfall, P-Process Sewer Lines, and the P-Ash Basin, which is a 35-acre waste unit.

Mr. Hannah stated in terms of strategy, they are doing an in-situ decommissioning of the reactor, meaning a major portion of the reactor building will remain in place. He stated they have inventoried the reactor, drained all the fluids from the reactor building and completed deactivation, in preparation for decommissioning. He stated they are currently evaporating disassembly basin water. He stated they are close to a million gallons that have been evaporated. He stated following the evaporation process, they would grout the basin and remove the entire above-grade portion of the reactor building. He stated following the removal of the above-grade portion, a concrete cap would be placed over it for added protection. He stated in addition to the disassembly basin scope, they would also grout all below-grade portions of the reactor building. He stated the ventilation stack and gantry crane would be removed. He stated the roofs would be modified and the building sealed. He stated one door would be welded shut should the need arise to get back inside for inspections.

Mr. Hannah displayed and explained a cross section of the reactor in-situ end-state.

Mr. Hannah reviewed the P-Area Operable Unit accomplishments, including the completion of deactivation and preparation of the facility for decommissioning. He stated several contracts have been awarded for execution of the decommissioning scope. He stated non-embedded metal has been removed from the building. He stated there are currently ten evaporators in operation. He stated the gantry crane has been removed. He discussed various contracts that have been awarded.

Mr. Hannah displayed some photographs concerning the removal of the gantry crane. He stated the contractor provided a great safety plan and executed the scope very efficiently. He displayed before and after photographs of the gantry crane removal.

Mr. Hannah stated they have completed the P-Cask Car Railroad track soil contamination removal. He stated the well installation at PSA-3A and 3B are complete. He stated they have completed vegetation removal at the Ash Basin. He stated they have installed the Batch Plan at P-Area, which would service both the P-Reactor grouting and the R-Reactor grouting.

Mr. Hannah displayed photographs of the Cask Car railroad track remediation. He stated they removed some tracks and soil that were contaminated and replaced it with clean backfill.

Mr. Hannah discussed the contract with Champion Concrete. He noted they are onsite on the south side of the P-Area Operable Unit.

Mr. Hannah stated in conclusion the project is being executed, contracts are being awarded and getting the scope accomplished.

CAB member Don Bridges asked if they were still on schedule. Mr. Hannah stated everything would be completed by January 31, 2012. CAB member Don Bridges asked what maintenance would be required. Mr. Hannah stated there would be ongoing surveillance, and corrective action would be taken, if required. CAB member Don Bridges asked why P-Area is being addressed before R-Area. Mr. Hannah stated it's on the FFA list a year before R-Area. He stated they would both finish at the same time.

CAB member Rose Hayes referred to the public meeting held in North Augusta prior to the final decision, and stated there were three approaches to all of the reactors being considered. She asked why the partial grouting and partial in-situ process were chosen and were there precedents anywhere for choosing that particular procedure. She also asked how many curies were in the reactor vessel. She stated in the drawing there is contact with the water table. Mr. Hannah stated they are pouring over 100,000 cubic yards of concrete within the existing concrete of the building. He stated the existing base mat of the reactor building is ten feet thick and some of the walls are over five feet thick. He stated they are pouring the grout to give it more stability and isolate the remaining contaminated equipment in place. He stated they are pouring beneath the vessel, which is within the process room approximately 15 feet above the floor of the reactor building. He stated in selecting the alternative that was chosen they weighed the remaining risks at the Site and the robust nature of the reactor building. He stated 211,000 curies remain within the reactor vessel. He stated this is the first weapons production reactor to be decommissioned, and there is no precedent for that, although Hanford has a reactor that they have put in a safe store condition. He stated the commercial nuclear industry is dealing with power reactors, and the typical approach is to do a complete removal. He stated the weapons production reactors are actually built into the building, with no intention of ever extracting them out.

CAB member Emile Bernard asked how much containment is below the disassembly basin, and what was in the sediment. Mr. Hannah stated the base mat for the disassembly mat is also in the ten-foot range. He stated the types of contamination found is some sludge material and failed equipment components that are in the bottom of the disassembly basin. He stated the reactor vessel has the bulk of the curies within the reactor building, and the disassembly basin sludge will have less than 10,000 curies. CAB member Emile Bernard asked if there was any radiation on the surface of the entombment of the disassembly basin. Mr. Hannah stated once remediation is completed, it would be completely safe.

CAB member Art Domby asked if the gantry crane is external and uncontaminated with radioisotopes. Mr. Hannah stated that is correct. CAB member Art Domby asked if it was taken to a landfill. Mr. Hannah stated it was removed, chopped up and put in the construction debris landfill, which is a clean landfill. CAB member Art Domby asked why it would not be recycled and offset against either the contractor's cost or dollars in for bid. Mr. Hannah stated they did an evaluation on that. CAB member Don Bridges stated the steel is approximately six-inch battleship steel made before the days of radioactive fallout, and very clean. CAB member Art Domby stated DOE has an opportunity to display prudent, efficient and cost effective decisions.

CAB member Joe Ortaldo asked about future outlook. Mr. Hannah stated when an area is completed, there is a land use control implementation plan that has to be developed, and reviewed. He stated they would be performing surveillance and maintenance in those areas. He stated there would be signs identifying the boundaries. He stated there are deed restrictions and descriptions on how to maintain the protectiveness of the area over time.

CAB member Tabitha Barrett referred to slide six, which states the P-Area Operable Unit will be safe for industrial reuse, and asked what the reuse is intended for. Mr. Hannah stated there is currently not a specified future use.

CAB member Manuel Bettencourt stated EM supports recycling on a case-by-case basis. He stated he is concerned about wasting some resources that could be used. Ms. Karen Guevara stated one of the concerns for this particular project is that it is under Recovery Act funding, with the end date being critical. She stated the process of going through free release is an administrative process, and it was felt it was too much of an administrative burden due to the time constraints. She stated she does acknowledge the concerns expressed.

CAB member Joe Ortaldo stated the crane is easily retrievable.

Presentation - Annual Update - Federal Facility Agreement - Mr. Brian Hennessey, DOE-SR

Mr. Brian Hennessey introduced himself as the FFA Project Manager for DOE.

Mr. Hennessey stated his purpose is to provide an annual briefing on FFA clean up milestones, which are required to be updated and approved by EPA and the state. He stated the Federal Facility Agreement is a legally binding agreement among DOE, EPA and SCDHEC governing the comprehensive cleanup of releases or potential releases of hazardous substances at SRS. He stated it has administrative requirements, enforceable schedules and milestones for actions and documents that are submitted. He stated the FFA also includes requirements for removing some liquid waste tanks from service. He stated the FFA spells out the authority and responsibilities of the three agencies, DOE, EPA and SCDHEC, and it also has dispute resolution procedures.

Mr. Hennessey referred to Appendix E, which has a lifecycle list of the cleanup milestones for all of the operable units at SRS, with three parts, E.1, E.2, and E.3. He stated E1 has enforceable milestones for the first year of Appendix E, E.2 has enforceable milestones for two years out, FY2012, and E.3 has milestones for the whole life of the program. He stated Appendix E is updated each year as required by the Agreement. He stated the annual update begins with the milestones that are already approved, with adjustments, and they seek approval for those adjustments. He discussed the reason for adjustments are such changes to site mission schedules. He stated schedules are subject to change when missions are completed.

Mr. Hennessey displayed a timeline for submittal and approval of Appendix E, and discussed it in detail. He stated Appendix E was submitted on November 16, 2009, received comments in late December of 2009, submitted a revision, and approval was granted approximately a month later in March of 2009.

Mr. Hennessey stated the Recovery Act would accelerate the completion of some of the work. CAB member Don Bridges asked if they are approving now for 2010 or 2011. Mr. Hennessey stated the Appendix E that was approved this year had milestones that start in FY11. He stated most of the liquid waste tank closure and waste removal related work is Recovery Act funded.

Mr. Hennessey stated some of the operable unit clean-ups would be done using early remedial, which is ahead of schedule or removal actions, which DOE can initiate such work, and he supplied several examples. He stated the removal actions do have documents that are reviewed by SCDHEC and EPA such as removal site evaluation reports, engineering evaluations and cost analysis, as well as action memos.

Mr. Hennessey stated the removal actions that have been taken and those that would take place have impacted some FFA enforceable milestones. He stated the effect has been to accomplish the work that would have happened after a record of decision, instead of before a record of decision. He stated when the record of decision is issued, the work would have been completed under removal action, and the record of decision would address the residual hazards. He outlined several milestones, and discussed them in detail.

Mr. Hennessey stated this year's Appendix E committed to the submittal of documentation for other removal actions, including the C-Area Cask Car Railroad Tracks, the C-Area Reactor Disassembly Basin, and the A-Area Ash Pile, the A-Area Coal Pile Runoff Basin, and a storm water outfall.

Mr. Hennessey stated this year's Appendix E adjusted the milestones for the C-Area Operable Unit, moving it out three years to starting in FY2016. He outlined the reasons for the adjustment. He stated some entries were deleted from Appendix E.3, which are the long-range milestones where activities have already been completed. He stated some of the milestone submittal dates for Gunsite 218 were accelerated and the L-Area Northern

Groundwater Operable Unit. He stated milestones were created for the submittal of a P-Area and R-Area post-construction report.

Mr. Hennessey displayed visuals and discussed the SRS Closure Plan, and outlined milestone/submittal dates. CAB member Don Bridges asked why there are delays in getting to C- Area and F-Area. Mr. Hennessey stated they have not worked out what the end state of C-Area is going to be from an historic preservation perspective, and the C-Reactor is being used for the missions previously discussed. He stated there is some decommissioning taking place in F-Area. Mr. Sonny Goldston with SRNS stated they are using the F-Canyon structure to assist the Transuranic Waste Management Program.

CAB member Kuppuswamy Jayaraman asked if the milestones refer to milestones for completion of work or milestones for submission of reports. Mr. Hennessey stated under any large scale clean up program, the problems needed to be addressed before the work is commenced. He stated the investigation and assessment work is punctuated by the submittal of the reports. He stated the first milestone for an area isn't moving soil; it's understanding problems.

Mr. Hennessey displayed Appendix E.1, E.2, and the beginning of E.3. He stated the first set of milestones on E.3 is liquid waste milestones followed by removing tanks from service or closing liquid waste tanks. He provided a link to the entire FFA, which includes all of the appendices and milestones, as well as general information regarding the Recovery Act implementation at SRS.

CAB member Madeleine Marshall stated she learned at the previous presentation by Mr. Hennessey that the scope of the FFA is the clean up of releases or potential releases of hazardous materials at the Site. She stated there was a question regarding whether or not this document had any jurisdiction over, for example, the canisters of vitrified waste once the vitrification process is complete and the canisters are in the storage facility, and the answer is no. She stated the scope ends when the release potential is controlled.

Ms. Shelly Wilson, SCDHEC, stated the FFA is a process that carries out clean up of the Site through approximately 2030. She stated you could think of it as the glass waste logs are in an area that would need to be cleaned and closed under the FFA. She stated to that extent, the FFA has a reach to the vitrified material because it would have to be encompassed in some sort of overarching cleanup decision at some point.

CAB member Don Bridges asked Mr. Hennessey to disregard operating facilities, and consider the rest of the things they're working on, and further asked for an approximation of how far along they are percentage-wise, dollars, or man hours, and what has been done thus far. Mr. Hennessey stated he could provide some approximate numbers. He stated in the FFA, they have 515 release sites, with approximately 370 complete and 145 to go. He stated that does not count the buildings, the EM buildings that are in Appendix K. He stated 250 out of 985 of those have been completed. CAB member Don Bridges asked if the numbers could be memorialized. Mr. Hennessey stated Appendix K contains all the buildings that they intend to some day decommission. He stated they are scattered throughout the Site.

CAB member Kuppuswamy Jayaraman thanked the presenters.

~Break~

Nuclear Materials Committee - Judith Greene-McLeod, Chair

CAB member Judith Greene-McLeod introduced herself as Committee Chair and noted her appreciation to the committee members. She stated the Nuclear Materials Committee focuses on issues involving nuclear materials that have an impact on present or future SRS activities, including spent nuclear fuel program activities, nuclear materials management and nuclear materials integration. She stated they are interested in consolidation, storage and disposition related to the legacy materials that were once part of the nuclear weapons production cycle that are no longer needed for their original purpose, but are not considered waste.

CAB member Judith Greene-McLeod stated the Committee had a meeting on May 4, 2010 in Aiken. She stated there were three presentations given at that meeting; one on depleted uranium oxide, the status of heavy water disposition, and an NNSA project update.

CAB member Judith Green-McLeod stated the Committee has four open recommendations. She stated there is one shared recommendation with the Waste Management Committee regarding the final disposition for spent nuclear fuel, surplus plutonium and vitrified high-level waste. She stated they have received a response, and that recommendation is open and would remain so for some time. She stated they also have Recommendation 250, regarding vitrified plutonium storage consequences. She quoted from the comments, "the SRS CAB's basic concern or issue is not what the ultimate disposal option is, but that there is a documented disposal option with a definite time line." She stated Yucca Mountain remains to be an issue. She stated Recommendation 266 concerns enriched uranium disposition, and noted DOE's response stated, "They estimated the proposed roadmap and nuclear materials system plan would be completed by May 2010." Mr. Patrick McGuire stated that is still in the works and it may be June. CAB member Judith Greene-McLeod stated Recommendation 269 concerns the General Accounting Office report regarding processing additional nuclear materials at H-Canyon. She stated they received a safety update in February. CAB member Don Bridges asked if Recommendation 269 primarily deals with the safety documentation that is still ongoing. Mr. Patrick McGuire stated they expect to have the H-Canyon DSA and TSR approved within the next couple of weeks, and that would provide the safety basis to begin processing spent nuclear fuel.

CAB member Rose Hayes stated when it was announced that Yucca Mountain would no longer be considered as a national geologic repository, the stated reason was that recent scientific studies indicated that Yucca Mountain was not an appropriate site for such purposes, and nothing else had been said regarding the studies. She asked how the CAB could obtain information regarding the scientific studies. Ms. Karen Guevara stated there are several EISs and supplements that synopsise everything that DOE had reviewed and made decisions on. CAB member Rose Hayes clarified she would be interested in obtaining the scientific studies that were used to determine that Yucca Mountain is not appropriate. Mr. Patrick McGuire stated the Secretary of Energy as well as the President made a decision, and it was a departmental decision. He stated there is a Blue Ribbon Committee that has commenced. He stated the decision on Yucca Mountain is somewhat outside the scope of the CAB as an EM Advisory Board. He stated they are not changing anything that's been done at the Site, and they are going to continue to disposition high-level waste, to vitrify it, and put it in a much safer form. He stated whatever the final decision is on a federal repository in the future, it would affect the Site; however, the decision is outside the scope of EM. He suggested staying abreast of what the Blue Ribbon Committee is doing. CAB member Rose Hayes stated in the past on the program flowcharts, Yucca Mountain was often designated as the end of a program as the disposition site in reports given to the CAB, but recognizes the making of the decision or having input on the decision is probably not within the scope of the CAB's function. She stated she would still like additional information or summary on the nature of the data that determined Yucca Mountain an inappropriate national repository. Ms. Karen Guevara stated as Environmental Management Program officials, they do not know what the studies consist of, as it is not part of the focus in their mission areas.

CAB member Kuppuswamy Jayaraman stated that while the question and answers given have good merits, he stated he feels there must be documentation available explaining the reasons surrounding Yucca Mountain.

CAB member Manuel Bettencourt stated the decision was made at the Presidential level, and suggested the CAB would be better off pursuing this through elected representatives. CAB member Joe Ortaldo agreed it was a political decision, and stated there probably isn't a simple scientific reason for the decision.

CAB member Judith Greene-McLeod stated the Committee has a recommendation concerning finalizing a plan for plutonium disposition. She stated there is a lot of background going back to the mid 90s, and referred to Public Law 107-107. She stated there have been 11 recommendations related to plutonium disposition dating back to 1997. She stated the recommendation was that the CAB recommends to DOE that they advise the CAB by July of this year when DOE will have an approved final plan for the disposition of all said plutonium currently stored or still expected for arrival at SRS in order to preclude unnecessary and unacceptable extended storage of excess plutonium at SRS. She stated the second part of the recommendation concerns advising the CAB of the scheduled impact, if any, that the disposition plan will have on other DOE-SR EM programs and plan and the incremental costs associated with the approved plan.

CAB member Kuppuswamy Jayaraman referred to the last two paragraphs on the comments page, and suggested the phrase, "The thrust of this recommendation is to voice our dismay at the flawed decision-making process which has resulted in many abandoned plans and no comprehensive decision in 10 plus years," is a very strong sweeping statement. CAB member Don Bridges suggested striking the word "flawed."

CAB member Jerry Wadley stated the recommendation includes good arguments, but the recommendations tend to be buried in the comments. He suggested bringing the recommendations out of the comments, and revising the format. CAB member Don Bridges stated the recommendation takes the higher-level view before it gets into details.

Ms. Karen Patterson referred to the fourth paragraph under background, which refers to a licensed plutonium load limit, and stated she doesn't think there has ever been a license, but a proposal in the license application. She then referred to the last paragraph in the background section, which states in part, "the federal repository has been funded by the citizens of South Carolina through the Nuclear Waste Fund," and suggested the citizens have funded it because they are ratepayers, not citizens. CAB member Don Bridges stated it should be citizens of the U.S.

CAB member Manuel Bettencourt stated some of the confusion is due to the attempt to lay out the history. CAB member Joe Ortaldo stated what they are really asking for is for DOE to provide the CAB with a report that was promised approximately a year ago, which addresses a lot of issues in the background. He referred to the first paragraph on the second page, and suggested the addition of wording regarding the role of H-Canyon, such as "H-Canyon is the only facility in the United States capable of processing aluminum-clad spent fuel. Without a federal repository, the spent fuel would likely be stored at SRS for an indefinite period of time." He stated the loss of H-Canyon's capabilities could have serious consequences. CAB member Judith Greene-McLeod stated that is a good change, which strengthens the recommendation. CAB member Joe Ortaldo referred to the third paragraph on the second page and the use of the word governor, and stated that was a former governor.

CAB member Kathe Golden stated she is in favor of the recommendation and appreciates all the hard work that went into constructing it. She stated she loves the phrase "flawed decision-making process."

CAB member Art Dombey suggested in addition to the previous recommendations related to plutonium disposition, there are two that are missing, Recommendation 213, which is the Plutonium Vitrification Disposition Facility, and Recommendation 243, the Plutonium Vitrification Facility, CD-1A. He stated the scheduling and time constraints that are starting to apply to the plutonium plans at the Site are getting critical.

CAB member Madeleine Marshall stated she thought the recommendation is excellent particularly in terms of the background and how it captured the history of what has taken place. She referred to the last sentence under comments, which reads, "The CAB would like the plutonium disposition issue resolved before another year passes," and suggested that language be strengthened.

Mr. Frank Redmond, U.S. Senator Johnny Isakson's office, stated with respect to the request for the scientific documentation on the decision regarding Yucca Mountain, he would make that request to the Department of Energy. He stated the answer would probably be slow, but he felt the CAB is entitled to know the basis of the decision.

CAB member Judith Greene-McLeod stated the recommendation would come on for a vote the following day, and concluded her committee report.

Waste Management Committee - Joe Ortaldo, Chair

CAB member Joe Ortaldo stated the objective of the Committee is to safely dispose of all solid and liquid wastes that are presently located on the Site, and getting them into their respective final disposition locations. He stated in the case of Transuranic waste that would be WIPP; in the case of high-level waste, it would be the federal repository. He introduced his committee members; Art Dombey, Alex Williams, Emile Bernard, Ed Burke, Judith Greene-McLeod, Stan Howard, Kuppuswamy Jayaraman, Cleveland Latimore, Denise Long, Mary Robinson,

Sarah Watson, and Rose Hayes. He stated the committee met on May 4, 2010 in Aiken. He stated CAB member Ed Burke addressed the status of Recommendation 211 concerning several saltstone issues, tank leakage issues, and the final disposition of Tank 48. He stated CAB member Ed Burke's recommendation was that Recommendation 211 was ready to close. He stated they left open a two-week comment period, and there were no additional comments; therefore, Recommendation 211 would be closed. He stated the meeting minutes would be posted on the website in the next few weeks. He stated the Committee has two draft recommendations. He stated there was a public workshop on performance assessments. He stated the Committee has ten open recommendations, with two joint recommendations. He stated seven of the eight recommendations are covered in the System Plan.

CAB member Joe Ortaldo referred to the draft recommendation concerning Plutonium Disposition, and invited CAB member Art Dombay to address the recommendation. CAB member Art Dombay displayed an overview chart and discussed it in detail. He stated 897 grams per cubic meter was put into the Yucca Mountain application, which became a limit for the proposed Yucca Mountain license application. He stated a license application made to the NRC can be amended through time, either during the application process or after it's actually issued. He stated the 897 grams per cubic meter is not something that is necessary for safety or the development of the canisters with the glass in them. He stated in February, DOE and SRS realized that Yucca Mountain was not going to go forward, and they told the contractor that they could increase the loading in the canisters to 2500 from 897 grams per cubic meter and increase the loading of plutonium. He stated 2500 grams per cubic meter is an environmental management limit set. He stated there would be approximately two or three metric tons of plutonium that would be fed through H-Canyon. He stated the Committee believes this is a viable approach to increase loading. He stated the way the Committee views the issue practically, legally, and program-wise, DOE should go back and reinstate the February 4, 2010 direction to the contractor and increase loading. He referred to the bottom of page three and the top of page four of the recommendation and suggested reading the language in bold print.

CAB member Don Bridges asked what the present canister count is in Rev. 15. CAB member Art Dombay stated the plan is approximately 7,235, with 2,940 completed. He stated through glass waste storage buildings, they have 2,339 places to store it, and would need Waste Storage Facility Building 3.

CAB member Art Dombay displayed the recommendation, and outlined it in detail. CAB member Don Bridges referred to recommendation number one and suggested making it the maximum basis as opposed to 2500 grams per cubic meter, and let DOE decide what the maximum would be. CAB member Art Dombay stated they had proposed in the February 4, 2010 letter to do two steps, go to 2500, and then do additional studies to increase it. He proposed changing recommendation number one to read, "increase loading to 2500 grams per cubic meter, as set forth in the February 4, 2010 directive to the liquid waste contractor, and in the future increase plutonium loading to the maximum extent practical." CAB member Art Dombay referred to the second and third recommendations, and explained them in detail.

CAB member Kuppuswamy Jayaraman stated he was concerned about the 2500 value. He referred to several statements throughout the recommendation. CAB member Joe Ortaldo stated the 2500 value has a lot of bases in it, known as a waste acceptance specification, and that's why that number is in there. He stated that what they are saying is the 2500 number is defensible, but if they can show a higher number is defensible as well, to proceed with that number. Mr. Patrick McGuire stated the Department sent a letter to the contractor directing them to increase from 897 grams per cubic meter to 2500 grams per cubic meter. He stated they had another phase to go higher. He stated they felt the 2500 grams per cubic meter was a technically sound number that would be acceptable in the DWPF and any temporary storage as well as in some federal repository. He stated the National Lab was conducting the documentation to form that basis. He stated in his opinion, the CAB is not telling the Department that is a technical basis because that decision had already been made.

CAB member Don Bridges asked what the volume of a canister is. Mr. Patrick McGuire stated he thought it was approximately a cubic meter, and stated he would supply that information.

CAB member Rose Hayes stated she still had some concerns with the basis for the 897 and 2500 grams per cubic meter. She referred to a previous report to the CAB regarding ANSI standards. She stated she researched ANSI Standard 801, which was developed by the American Fire Protection Agency, and it has to do with protecting

buildings and facilities that handle nuclear materials. She stated she would like to know which IAEA standard is utilized. She suggested obtaining the correct information from DOE on the basis for the values before making any recommendations. CAB member Joe Ortaldo stated the CAB should feel comfortable with the nuclear safety studies that are performed, and perhaps ANSI Standard 801 was not quoted correctly. CAB member Rose Hayes asked that the committee research both standards.

CAB member Manuel Bettencourt stated the important thing is the CAB dealing with the 897 and 2500 grams per cubic meter. He stated at the Chair's meeting, they were informed that EM is going back to the 897 officially. CAB member Joe Ortaldo stated the Site had to rescind the 2500 number as instructed by Headquarters.

CAB member Marolyn Parson referred to page five of the recommendation, the last sentence, which begins with, "The public interest in the safe and economical placement," and goes on to say, "the 897 grams per cubic meter figure is an error". She asked for clarification regarding the word "error." It was suggested to replace "error" to "inappropriate."

CAB member Kuppuswamy Jayaraman suggested requesting the technological reasons for decisions made regarding the 897 grams per cubic meter. CAB member Art Domby suggested adding a recommendation stating if DOE does not go to the 2500 number; please explain why the 897 number is a valid number (Amended: *Editorial changes were made to recommendation to include these comments per Art Domby*).

Ms. Karen Patterson stated the DWPF volume is two-thirds of a cubic meter in answer to a previous question.

CAB member Joe Ortaldo announced the next Waste Management Committee would be held on June 22, 2010 at the Augusta Marriott in Augusta, with the subject being the status of the Superfund Training, with a second topic probably being a review of the ten top programmatic risks in Rev. 15 System Plan.

CAB member Joe Ortaldo stated the second recommendation proposed by the Waste Management Committee concerns the Rev. 15 System Plan. He stated it is a very valuable document, which spells out the next 20 years concerning the liquid waste system, with a lot of improvements. He stated the background addresses some of the specifics that are going to be done, and summarizes some highlights of what improvements are going to be made. He stated along with the Plan, there are certain assumptions, bases, and new technologies that are going to be utilized. He stated the bottom line on the recommendation is they are asking DOE to come back to the CAB and keep them up to date on any changes relative to the System Plan. He encouraged everyone to review the background and comments contained in the recommendation. He reviewed the five recommendations in detail.

CAB member Don Bridges asked if semi-annual is the appropriate time period. CAB member Joe Ortaldo stated he used semi-annual as a starting point.

CAB member Kathe Golden referred to the first page where it discusses the Plan technology improvements, with three listed. She asked if number three referencing optimization of the tank closure process is a paper work change or enhanced cleaning. CAB member Joe Ortaldo stated he thought it was a little bit of both, but a lot of it is paper work.

CAB member Madeleine Marshall suggested the inclusion of a date for the first review. She referred to the fourth paragraph under background, under assumptions, number two, and asked what the term Secretarial Waste Determinations means. CAB member Joe Ortaldo stated it is his understanding the Secretary of Energy has to sign off on the final waste determination.

CAB member Kuppuswamy Jayaraman asked if the background and comments had taken into account the System Plan paper submitted on February 23, 2010. CAB member Joe Ortaldo stated a lot of it is a summation of the Executive Summary out of the Plan itself.

CAB member Joe Ortaldo concluded with a request for further comments or suggestions, and there were none.

Administrative Committee - Sarah Watson, Chair

CAB member Sarah Watson stated the online meetings are being fine-tuned, and encouraged all the CAB members to tune in if they are unable to be present at a particular meeting. She explained how to access online meetings. CAB member Don Bridges asked if they have received any substantive comments on the schedules. CAB member Sarah Watson stated they have not received any additional comments since the last meeting.

She stated the new spring issue of the *Board Beat* is available, and encouraged everyone to take an opportunity to review it. She offered accolades to the staff.

She announced the CAB Retreat has been scheduled for October 28 through October 30, 2010 in Aiken at the Rose Hill Estates. She stated there would be two full days, Thursday and Friday, with a half-day session on Saturday. She encouraged everyone to plan on attending.

She stated the Administrative Committee had a meeting that morning, and they are continuing to review and tweak the Speakers Bureau. She stated the Committee has four priority issues that came out of the meeting, and discussed those in detail.

CAB member Manuel Bettencourt announced there would be no Executive Committee meeting.

CAB member Sarah Watson announced there would be a photo session to update CAB photos the following day midday.

CAB member Don Bridges suggested developing a systematic approach for finding an audience for the Speakers Bureau. CAB member Sarah Watson stated what they plan to do for a specified period of time is piggyback on the Site tours.

~Public Comments~

Ms. Marolyn Parson stated she signed in to an online meeting on May 4, 2010. She complimented the staff that provides the support during the e-meetings. She stated the audio has been greatly improved. She stated very few people are participating in this opportunity. She stated she was the only person connected for the Nuclear Materials Committee meeting, and there were approximately four or five people online for the Waste Management Committee meeting. She stated the handouts have to be downloaded, and you can see the speaker, but not the screen.

CAB member Kuppuswamy Jayaraman suggested everyone attend ITRC meetings, if possible. He stated the presentations are excellent, and the slides are shown with the voice of the person presenting in the background. He stated during the question and answer sessions, interested parties may call in via phone.

~End of Public Comments~

Meeting adjourned at 4:30 p.m.

**Savannah River Site
Citizens Advisory Board
Meeting Minutes
May 24-25, 2010
Savannah, GA.**

Tuesday, May 25, 2010, Attendance

SRS CAB Members

Tabitha Barrett
Manuel Bettencourt
Dr. Don Bridges
Ed Burke
Art Dombay
Kathe Golden
Judith Greene-McLeod
Dr. Rose Hayes
Dr. Kuppuswamy Jayaraman
Ranowul Jzar
Madeleine Marshall
Joe Ortaldo
Dr. Marolyn Parson
John Snedeker
Dr. Jerry Wadley
Sarah Watson

Agency Liaisons

Al Frazier, GADNR
Karen Guevara, DOE-SR
Patrick McGuire, DOE-SR
Rob Pope, EPA-4

Regulators

Van Keisler, SCDHEC
Kim Newell, SCDHEC
Shelly Wilson, SCDHEC

DOE/Others

Rolando Bascumbe, EPA-4
Kyle Bryant, EPA-4
Tom Cantey, SRS-NNSA
Bill Clark, SRS-NNSA
Becky Craft, DOE-SR
Bert Crapse, DOE-SR
Jack Craig, DOE-SR
Gerri Flemming, DOE-SR
Terry Spears, DOE-SR
Wade Whitaker, DOE-SR
Zack Smith, DOE-SR
Susan Mason, DOE-HQ
Rich Olsen, DOE-SR
Bethany Raines, DOE-PEC
Brian Thompson, EPA-4

Contractors

Scott Doss, AAVS
Clay Miller, AAVS
Fred Dohse, SRNS
Sonny Goldston, SRNS
Jeannette Hyatt, SRNS
Paul Sauerborn, SRNS
Nancy Bethurem, SRR
Chris Reno, Energy Solutions
Bill Brizes, V3T
Jenny Freeman, V3T
Aaron Stevens, V3T
Erica Williams, V3T

Stakeholders

Margot Musick, V3T
Karen Patterson
Frank Redmond-Sen. Isaakson's Office
Suzanne Rhodes-LWVSC

Ms. Karen Guevara, DOE, served as the Deputy Designated Federal Official (DDFO). Ms. Jenny Freeman served as Meeting Facilitator. Ms. Marolyn Parson led the Pledge of Allegiance for the group. The Facilitator reviewed the ground rules, meeting procedures, and the agenda.

SRS CAB members Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyye Vereen and Alex Williams were unable to attend. CAB member Joe Ortaldo stated CAB member Alex Williams had undergone unexpected surgery.

Approval of the Minutes

CAB member Manuel Bettencourt opened the floor for comments concerning the minutes. CAB member John Snedeker stated he was present at the meeting in Columbia. There being no further corrections or comments, CAB member Manuel Bettencourt called for a motion to approve the minutes. After receiving a motion and a second, the minutes were approved. The following CAB members were absent during the vote: Emile Bernard, Ric Castagna, Art Domby, Rose Hayes, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyee Vereen, and Alex Williams.

CAB member Manuel Bettencourt stated there is a letter from the SSAB Chairs produced out of the meeting in Oak Ridge included in the packets, and the CAB would be voting on that during the Chair Update.

Department of Energy Update - Karen Guevara, DOE-SR

Ms. Karen Guevara introduced Jack Craig, the SRS Acting Manager. Mr. Craig stated he has been involved in working with Advisory Boards since 1993, and stated he was glad to be in attendance. He stated Dr. Triay issued a press release last week, establishing as part of her Environmental Management Advisory Board a subcommittee to review tank waste issues across the Department, primarily focused on Hanford, SRS, and Idaho. He stated he had a copy of the work plan available. He stated he urged them to reach out to the CAB. Mr. Craig introduced Mr. Fred Dohse.

Mr. Dohse stated each day at the Site begins with a safety message, and his safety message was to discuss the safety performance of the Savannah River Nuclear Solutions. He stated they take safety very seriously, and stated they are now approaching nine millions hours without a lost day of work due to a safety issue. He stated when they reached seven million hours; they had a celebration, serving barbeque to approximately 8,000 members of the work force. He displayed several photographs of the celebration. He stated safety and safety performance is a core value for SRNS, and absolutely necessary that operations are built on a safety foundation. He referred to the mid-year review, and stated he would be happy to discuss any points made.

CAB member Don Bridges asked how close they were to a Site record. Mr. Dohse stated he did not have that information available at the present time, but would provide it at a later date.

Ms. Guevara thanked Mr. Craig and Mr. Dohse. Ms. Guevara stated since the last full board meeting, they've had two SRS public tours, and by July they would have had ten. She stated the next tours are scheduled for June 6, 2010 and June 24, 2010. She stated in April, the Site announced its request that the GADNR submit a proposal to initiate environmental monitoring, and they are waiting for a response. She stated the Department hosted a public workshop on the concept of an energy park at SRS. She stated they have also had presentations from SRNS. She stated the Department is beginning to entertain the possibilities of leasing land and identifying potential uses for some of SRS's infrastructure. She stated on April 19, 2010, they were pleased to host Congressman Jim Clyburn as well as EPA Administrator, Lisa Campbell, for a tour of some of the Recovery Act projects on the Site, and to participate in a program that recognizes the graduates of the Superfund JTI program. She stated on June 3, 2010, there would be a ribbon cutting ceremony on the Site to celebrate completion of a radiological evidence examination facility, REEF facility, at the National Lab for the FBI. She recognized Mr. Pat McGuire, Assistant Manager for Nuclear Materials Stabilization, and Mr. Terry Spears, the Assistant Manager for Waste Disposition. She stated Bill Clark would address the CAB later in the day regarding the Site's NNSA projects.

Ms. Guevara stated in the area of waste disposition, they continue to make significant progress in treating and dispositioning liquid and solid waste. She stated Salt Batch 3 is ready and staged in Tank 49 for feed to the integrated salt disposition process, which accounts for approximately 730,000 gallons of waste feed processed. She stated at DWPF, feeding and pouring operations continue to run smoothly, and a total of 131 canisters have been poured in FY2010, accounting for an overall total of 2,926 glassified waste canisters since the 1996 start up. She stated the saltstone facility is presently in a scheduled outage to tie in Vault 4, Cells B and H, along with other facility upgrades and maintenance.

Ms. Guevara stated on May 18, 2010, the Department hosted a public educational forum to facilitate effective public involvement in some of the waste management decisions, and in particular the forum focused on the

radiological performance assessments the Agency uses to help make waste management decisions across the complex.

Ms. Guevara stated analyses of Tanks 18 and 19 characterization samples are in process, as well as samples analysis is continuing in Tank 5 at the completion of heel removal. She stated they are also preparing to resume heel removal in Tank 6. She stated presently there are a total of 13 tanks for which there is some activity underway with respect to cleaning or preparing to clean those tanks in anticipation of closure. She stated with regard to the Tank 48 treatment project, they are completing the initial design of a fluidized bed steam reformer system, which is an at-tank treatment capability that will allow them to move forward with plans regarding recovery of that tank for use in the tank system in late 2014.

Ms. Guevara stated construction of the Salt Waste Processing Facility by Parsons continues. She stated the decking elevations are now up to 108 feet and 116 feet, and walls are up to an elevation of 124 feet and 139 feet. She stated three topping slabs were recently completed, accounting for placement of 33 of the 51 slabs necessary to cover the central processing area base mat.

Ms. Guevara stated Savannah River Remediation is continuing to revise its initial contract performance baseline, which addresses corrective actions following some of the independent reviews of the baseline. She stated the Department of Energy expects to receive that from the contractor within the next few weeks.

Ms. Guevara stated on April 5, 2010, the State of Utah announced that the testing they did on depleted uranium oxides that had been sent to Energy Solutions' Clive facility from SRS have been completed, and the test results confirmed that the DUO was accurately classified as Class A low-level waste and fully complied with Energy Solutions' license. She stated the waste at Clive would remain in storage until the Utah Radiation Control Board completes its ongoing rulemaking efforts and the regulators receive and review the site-specific performance assessment for the Clive facility that demonstrates the long-term safety of depleted uranium. She stated the remaining SRS DUO would not be shipped to Utah until the ongoing performance assessment is completed. She stated the Department sent a letter to the Utah governor on April 22, 2010 that described the Department's commitment to the state regarding DUO disposal. She stated Headquarters continues to consider disposition options for the DUO.

She stated the Office of Environmental Management has decided not to move forward at the present time with its February decision to direct contractors to start planning for the higher concentrations of plutonium in the DWPF waste canisters. She stated no safety concerns have been raised, but the Department wants to ensure the decision has been fully reviewed, including all legal and environmental issues.

She stated the Site is now 95 percent complete with consolidation of surplus non-PIT plutonium from across the DOE complex. She stated the dissolved plutonium is being sent in batches to DWPF for vitrification. She stated they continue to dissolve and process unirradiated highly enriched uranium, HEU, shipped from sites across the complex. She stated once processed, the HEU is then blended with natural uranium supplied by the TVA to make low-enriched uranium, which is then delivered back to the TVA vendor for production of commercial reactor fuel for use by the TVA. She stated they expect all of the unirradiated HEU that's planned for the enriched uranium disposition project to be dissolved by September 2010.

Ms. Guevara stated preparations are underway to begin processing of spent nuclear fuel, which would begin shortly after dissolution of the unirradiated HEU is complete. She stated the transition from unirradiated material to spent fuel is expected in the fall of 2010.

She stated in terms of area completion, SRS has now completed 370 of 515 waste units, or 72 percent, and they have decommissioned 25 percent of the 985 facilities that they expect to have to demolish as part of the program. She stated Zack Smith would be addressing the remaining Recovery Act portfolio.

She stated the Office of Environmental Management has scheduled completion of major National Environmental Act analysis and record of decision. She stated they expect the spent nuclear fuel supplement analysis by the end of June, and issuance of an amended record of decision in support of the shift to spent nuclear processing.

Ms. Guevara stated the new Ameresco Biomass Cogeneration Facility would run on woodchips, pallets, and old tires, and will replace a 50 plus year old coal fired powerhouse that currently provides mission steam to all of the Department's operational facilities. She stated construction started on September 14, 2009, and explained the phases in detail. She stated they are also installing two smaller biomass boilers, one in K-Area and one in L-Area, and construction of those plants started in March of 2010.

CAB member Joe Ortaldo stated there are a few copies of the handouts from the educational forum on the PA, and appreciated the support. He stated the ARRA money has created good jobs, but it's going to run out in a few years. He asked what activities are ongoing to make a smooth transition when that money is gone. Ms. Guevara stated the Recovery Act project is looking at ensuring that the workers who have been hired temporarily are getting assistance in terms of updating resumes in preparation for transition into other jobs. She stated they are anticipating and looking at the possibility of taking those workers and using them for on-site possibilities. She stated it is realistic to start seeing the aged work force start to retire. Mr. Zack Smith stated the SWPF start up piece of hiring and training is all covered by budget.

CAB member Kathe Golden asked for information regarding the K-Area Cooling Tower. Ms. Guevara stated at approximately 10 a.m. they are expecting to implode the K-Area Cooling Tower, and they will be doing a live streaming feed of the implosion.

CAB member Manuel Bettencourt stated Headquarters is reviewing dedicating money for transitions following the termination of ARRA funding. He referred to the ARRA funding profile, and asked how the 1.5 billion dollars obligated became 1.3 billion dollars obligated. Mr. Zack Smith stated there are 1.6 billion dollars total planned to be spent.

CAB member Ed Burke asked if there is a projected date regarding the final decision concerning the waste material that was slated to go to Clive, Utah and whether it would actually go. Ms. Guevara stated they are expecting Headquarters to make a decision in June.

Environmental Protection Agency Update – Mr. Rob Pope, EPA-4

Mr. Rob Pope recognized two EPA attorneys, Brian Thompson and Rolando Bascumbe, who were present at the meeting. Mr. Pope stated they are pleased with the progress of the clean up at SRS. Mr. Pope stated Ms. Lisa Jackson, Administrator, as well as Congressman Clyburn, attended a meet and greet of people who had gone through the SJTI and received jobs at SRS, and to discuss the Recovery Act and more jobs at SRS. Mr. Pope stated the Assistant Administrator of EPA attended an Environmental Justice Community Forum, and some actions items were developed from that forum. He stated there would be a briefing at a later date regarding SJTI. He stated training is ongoing at Allendale, and by mid-summer, they should start seeing graduates. He stated EPA is very pleased to see the letter from the SSAB Chairs.

Mr. Pope stated there have been a number of major milestones in tank clean up. He stated they're at a new phase with Tanks 18 and 19, and discussions have been ongoing with the three agencies for integration.

CAB member Tabitha Barrett asked what site in Allendale the SJTI is ongoing. Mr. Pope stated they are at Denmark Tech receiving technical training. Mr. Kyle Bryant stated they have been meeting in Allendale in a couple of facilities. He stated they have 42 candidates under training currently. He stated they have been video documenting everything as well as taking photographs.

CAB member Kuppuswamy Jayaraman stated that while information relating to what EPA is generally doing is very interesting and important, perhaps there could be an emphasis on what EPA has done as a regulatory agency regarding the activities that are ongoing at SRS.

CAB member Rose Hayes asked if the CAB would be interested in having someone report or review some of the radiological and geologic assessments of the site that Ms. Guevara mentioned.

South Carolina Department of Health and Environmental Control – Shelly Wilson, SCDHEC

Ms. Shelly Wilson stated that the President has designated the Coast Guard as the lead agency regarding the response to the ongoing BP oil spill in the Gulf, and South Carolina is working with the Coast Guard as well as the South Carolina Emergency Planning Office to make sure they are prepared if anything should affect the coast.

Ms. Wilson stated in early March, DOE filed a motion with NRC to withdraw the Yucca Mountain application, and that decision is before the NRC's Atomic Safety and Licensing Board. She stated South Carolina has filed to intervene in that process and would be a part of those proceedings. She stated South Carolina has also filed suit in the D.C. Circuit Court of Appeals in terms of the Yucca Mountain withdrawal request.

Ms. Wilson stated they have been looking at a general closure plan for the F-Tank Farm of high-level waste tanks. She stated that is the overarching document that describes the general concept for closure, and after that document would come closure modules that would be specific to each tank. She stated they expect the public notice to be sometime this summer.

CAB member Don Bridges asked what measures are available to deal with any corrective actions regarding the BP oil spill. Ms. Wilson stated she is not sure what tools would be used.

CAB member Marolyn Parson asked if the computer models of the oil spill deal with the impact of hurricanes, and would it exacerbate or help disperse the oil. Ms. Wilson stated to respond to this kind of disaster takes many resources from many agencies, and it may be beyond DHEC's direct area of involvement. She stated she is not sure whether hurricanes have been considered.

Georgia Department of Natural Resources - Al Frazier, GADNR

Mr. Al Frazier stated two weeks ago, the Georgia Emergency Management Agency received a request from the Emergency Management Assistance Compact, which is a compact between a number of states for mutual assistance in a disaster. He stated the State of Florida asked GEMA what could be supplied as far as manpower and equipment if portions of the Florida coast were impacted by the BP oil spill. He stated they have approximately 30 qualified people who volunteered, if necessary, for two-week deployments; however, no one has been deployed or asked to be deployed as of yet. He stated they also have put together a plan should any oil get to the east coast.

Mr. Frazier stated the Sunday before the last Board meeting, there was an approximately 750-foot cargo ship that was backing away from its berth and hit a piece of steel I-beam and punctured a hole in the side of the vessel, also puncturing an internal marine diesel fuel tank. He stated the initial estimate was anywhere from seven to 10,000 gallons spilt. He stated the way it was stopped was some dock workers found a scrap piece of timber, and jammed it in the hole, which was successful in stopping the leak. He stated he and his two initial responders became involved on that Monday morning when incident command was formed. He explained the plan that was developed, and stated they collected approximately 2,000 gallons with barge skimmers. He stated there were no reports of distressed wildlife. He stated two weeks later, they had an oil spill drill, which was a government led two-day prep exercise, with approximately 150 people.

Mr. Frazier stated last month they were notified that two of their EDP offices were being closed, including an office in Savannah that's been in existence for 16 years. He stated the people in those offices have not lost their jobs, and have been offered positions in other offices within the division. He stated over the past three years, the budget has been slashed close to 40 percent.

Mr. Frazier stated the open burning ban is in effect in some parts of the state. He stated 13 counties were affected when it began in 1996, and it has since been expanded to 54 counties, and the burn ban runs from May 1st to September 30th.

CAB member Don Bridges asked how well the models worked during the oil spill in the Savannah Harbor. Mr. Frazier stated one of the things they observed with a true oil spill are things moved faster and traveled quicker than what people were expecting.

CAB member Marolyn Parson asked what the purpose is of the sampling program previously discussed and what they hope to gain by sampling. Mr. Frazier stated the program previously in place would monitor what is happening on the Georgia side of the river, much like what South Carolina did. He stated it looked at peaches, deer meat, fish tissue, and sediment. He stated they are looking forward to participating in that kind of sampling and supply information specific to the Georgia side.

CAB member Rose Hayes asked if the functions of the closed offices are being covered somewhere else. Mr. Frazier stated the Savannah area office covered ten coastal counties and the Brunswick office covered the rest of the coastal counties. He stated emergency response would be delayed, as those people would be approximately an hour and a half away in the Brunswick office. He stated the Savannah office mostly dealt with enforcement and compliance, and those functions would be transferred to the Brunswick office.

~Public Comments~

There were no public comments.

~End of Public Comments~

Chair Update - Manuel Bettencourt, CAB Chair

CAB member Manuel Bettencourt stated there are some binders available from the Public Assessment Workshop, and it would be posted online as well. He stated there have been four committee meetings, and there are four recommendations to deal with. He stated CAB members Don Bridges and Judith Greene-McLeod would attend the REEF ribbon cutting. He welcomed everyone to Savannah, his hometown.

He stated there was an SSAB Chairs meeting last week where Judith Greene-McLeod and he were in attendance, which dealt with issues such as long-term stewardship. He stated they would vote on the letter that came out of that meeting. He stated they heard from the NRC, and they would be addressing the Integrated Priority List before the July meeting. He stated he heard that TRUPACT III should be approved in the next couple of months. He stated one of the accomplishments was the Site-Specific Metrics, and Secretary Triay was very interested in that. He stated there was a Chairs conference call meeting last week, with a budget update presented. He stated the PBSs are going to be broken down into maintenance and operations and development. He invited CAB member Don Bridges to take the floor, who recognized those who have had a birthday since the last full Board meeting.

CAB member Manuel Bettencourt stated the letter, which is a product of the SSAB Chairs, called for an up or down vote only, and no changes could be made to it. He stated the vote would be approval of him signing the letter. CAB member Art Domby moved to request for the CAB to approve the execution of the letter by CAB member Manuel Bettencourt. CAB member Jerry Wadley seconded the motion.

CAB member Ed Burke asked if the Committee saw the recommendation as being cost neutral. CAB member Manuel Bettencourt stated the Chairs see it as optimistic, but expressing concern about clean up as well as jobs. CAB member Ed Burke stated in doing that, they're moving up work, and asked if the overall costs end up being impacted either positively or negatively by the experienced work force. CAB member Manuel Bettencourt stated from previous models, anything spent currently on clean up would be a cost savings.

CAB member Madeleine Marshall stated she was fully in support of the letter, and asked if the letter would have an impact since the budget request is almost ready to be submitted. CAB member Manuel Bettencourt stated they had been assured the letter was just in time. He stated the Integrated Priority List would be dealt with in the next couple of months.

CAB member Manuel Bettencourt called for the vote. The motion passed unanimously. The following members were absent during the vote: Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyve Vereen, and Alex Williams.

Facilitator's Update - Jenny Freeman, Facilitator

The Facilitator stated her report was issued on May 20, 2010, and changes have occurred since then. She stated as of May, there are no pending recommendations, 18 recommendations are open, and 250 recommendations are closed for 268 total recommendations. She stated she has a copy of all the recommendations from the CAB's history available, with a shorter version enclosed in the packets, and it is also available online.

~ **Break** ~

Ms. Shelly Wilson, SCDHEC, stated, following research regarding previous questions, they are considering locations for booms and skimmers, and boats, as well as other resources and tools that could be used to address any oil that may come to South Carolina. She stated NOAA is researching any impact a hurricane might have on the BP oil spill. She stated because of the many possibilities regarding hurricanes, they haven't yet modeled it. She stated should they see a storm forming, they would fold that into their modeling.

Ms. Karen Guevara stated Doug Hintze is not available due to his reserve duties, and has been activated and is in the Gulf. She read his email in response to her inquiry, which stated, "there are four main operations to clean up the oil; first, open water and near shore skimming to collect the oil, 262,000 barrels collected near shore use as local fisherman, boaters, et cetera; second is in-situ burning of oil after it's been rounded up, over 40 burns, about 50,000 barrels; the third is air spraying of oil dispersant, approximately 250 flights covering over 200 square miles, greater than 600,000 gallons applied; and fourth is on-shore clean up of oil. So far oil has contaminated 84 miles of coastline, 25 miles heavily enough to require clean up, other light oil sheen. Rough weather is bad for clean up because it rips up booms that are barricading oil from reaching shore, makes it harder for planes to locate oil plumes and it eliminates skimming and burning. The only good aspect is it does break up the oil as a natural dispersant. Lots of good efforts by thousands of hardworking folks to do the right things to resolve a bad situation, but as is frequently the case, the media focuses on the negatives."

CAB member Judith Greene-McLeod stated she had just heard over 500 dolphins and endangered sea turtles have already been found dead.

Waste Management Committee - Joe Ortaldo, Chair

CAB member Joe Ortaldo briefly summarized some of the points made the day before regarding the previous committee meeting, the closing of Recommendation 211, draft recommendations and the public workshop discussed earlier.

Presentation - Transuranic (TRU) Project Update - Bert Crapse, DOE-SR

Mr. Bert Crapse stated the last time he updated the TRU Program was approximately a year ago. He stated TRU waste is basically material that's contaminated with radioisotopes greater than the atomic weight for uranium, and it can be clothing, sludges, soils, tools and job-control waste. He stated the Department started disposing of the waste in 1999 at WIPP, and SRS started shipping waste to WIPP in 2001, and have been very successful with that program.

CAB member Manuel Bettencourt asked how the classification of TRU relates to the NRC's greater than Class C. Mr. Crapse stated Transuranic waste is unique for DOE, and there's really not a direct tie with the greater than Class C waste. He stated the waste for WIPP is greater than 100 nanocuries per gram by weight. He stated there are short-lived radioisotopes that can make a waste greater than Class C that wouldn't be acceptable to WIPP. CAB member Manuel Bettencourt asked if every time something is handled is it classified. Mr. Crapse stated at the time the waste is generated, they try to classify it. He stated for TRU waste, it is generated routinely, and it's classified at the time.

CAB member Joe Ortaldo stated TRU is unique to DOE because DOE has dealt with 239 and 238, whereas the rest of the nuclear industry doesn't get involved with that as much.

CAB member Rose Hayes asked if the salt formation and the rate at which it is encompassed could be described in more detail. Mr. Crapse stated he couldn't address the facility in depth, but the salt creek is approximately ten or so inches a year.

Mr. Crapse outlined his presentation, and stated it would cover a TRU waste inventory overview, some progress and accomplishments, TRU metrics, the safety culture, challenges with what's remaining and difficult waste, along with a summary.

Mr. Crapse stated they have finished phase one because it was half of the volume, which is a significant achievement. He stated they were set up to do drum waste, with an inventory of 30,000 drums, and 6,000 cubic meters of waste has been dispositioned, slightly more than half of the original inventory. He stated by dispositioning that waste, a lot of space was freed up. He stated as the transition to Recovery Act Phase II takes place, a lot of the lessons learned were carried through. He stated the 1000th shipment from the Site was made last year. He stated to do what needs to be done with the remaining waste under Recovery Act funding; they are looking at multiple facilities to disposition the waste. He stated the waste is currently stored in E-Area, and it is being processed through facilities located in F-Canyon and H-Canyon. He stated drums are being remediated again in F-Canyon. He stated in order to be successful with the large box waste, one of the key things they have recently done is gone back and restarted the F-Canyon warm crane. He stated waste had been repackaged in H-Canyon in the past, and discontinued due to funding, and has been started again. He stated E-Area is where the waste is prepared for shipments when it returns from the facilities, and 20 shipments were completed in March and April. He stated they are currently in between another shipping campaign, and expect shipments to resume in July, at which point in time they expect to make approximately four or five shipments per week through the next couple of years.

CAB member Kuppuswamy Jayaraman asked why compaction of waste is not being done. Mr. Crapse stated since waste is not compacted, his knowledge is limited. He stated the State of New Mexico, which is part of the approval process, is very hesitant regarding waste compaction. He stated there is one facility that compacts waste, and that is the Advanced Waste Facility in Idaho, and they went through a lengthy process in order to compact the waste. CAB member Kuppuswamy Jayaraman asked if there was a specific problem with compaction. Mr. Crapse stated that technically the waste can be compacted, but it's more of an environmental regulatory issue than it is technical.

Mr. Crapse displayed a chart regarding Overall TRU Waste Volume Disposition, and photographs concerning field progress and highlights, and explained them in detail.

CAB member Manuel Bettencourt asked for an explanation regarding how to solidify liquids. Mr. Crapse stated they have a material that absorbs the liquid and solidifies it. He stated most of the liquids are not large.

Mr. Crapse stated with the drum program nearly complete, there's approximately 5,000 cubic meters of waste remaining, and described what that waste consists of. He explained the difference between contact handled waste and remote handled waste. He stated the project is presently between the \$300 to \$400 million mark, and they are working on what funding is available. He stated there are approximately 200 cubic meters of very difficult waste remaining when the program is finished.

CAB member Don Bridges referred to the volume chart, and asked what percentage of the work has been completed. Mr. Crapse referred to the total legacy disposition under the Recovery Act. He stated the total they want to complete is approximately 5,000, and they are at approximately the 800 mark under the Recovery Act.

Mr. Crapse gave an overview of the ongoing and enhanced safety focus. CAB member Rose Hayes asked if the rate of radiation from 238 is stable or does it increase with the amount of pU 238 present. Mr. Crapse stated there's a correlation between the concentrations of the material to the radiation. He stated there are standards and safety requirements that have to be maintained to ensure the workers would not exceed those doses.

Mr. Crapse displayed a photograph of a storage facility, and described the various containers utilized for shipment.

Mr. Crapse discussed the 200 cubic meters that would not be processed under the Recovery Act, some of which is very strong Gamma emitting waste or high curie content waste. CAB member Manuel Bettencourt asked what a silver saddle is. Mr. Crapse stated it's small and chip-shaped which is some kind of column distillation operation. He stated there is waste with very strong lead shielding inside of it, which prevents them from truly understanding the RAD levels, and would have to be shipped and processed for remote handled waste. He stated they also have some oversized remote handled waste with no robotic operation at the present time where that waste can be size reduced.

CAB member Judith Greene-McLeod asked what "NC limits" means. Mr. Crapse stated it means "new criticality limits". CAB member Rose Hayes asked what DPM means. Mr. Crapse stated it means disintegrations per minute.

CAB member Madeleine Marshall asked what risk is associated with the very difficult waste. Mr. Crapse stated if he were to summarize all the waste, it would be three things: one, the facilities currently are set up to do large volumes of waste; two, the waste requires some unique characterization and operation; and three, a lot of the very difficult waste creates concern with worker exposure, and would require a unique facility. CAB member Madeleine Marshall asked if leaving it alone is the right thing to do right now. Mr. Crapse stated they are trying to maximize the volume of waste that can be dispositioned with the funding available through the Recovery Act.

CAB member Joe Ortaldo asked how many drums there are causing criticality concerns, and what is the level of concern. Mr. Crapse stated there are about four of them.

CAB member Manuel Bettencourt asked if they have gone through an exercise to try to bound the cost regarding the 200 cubic meters. Mr. Crapse stated the contractor is addressing it, with a report due next month, and the earlier numbers were \$60 to \$100 million.

Mr. Crapse summarized his presentation, stating worker safety is the highest priority. He stated there are two facilities in operation with no worker uptake events. He stated they are bringing the F-Canyon truckwell online, which would be more intensive. He stated over half the inventory has been completed to date, and significant technical challenges remain. He stated progress to date is slightly behind plan.

CAB member Art Dombay asked if there is a conceptual plan as to the two scopes, the plan scope and the technical challenges scope. Mr. Crapse stated they have had a conceptual plan for some time.

CAB member Madeleine Marshall asked about the TRUPACT III status. Mr. Crapse stated they went through many years of the licensing process with NRC, and they are going to approve it next month. He stated the container has to be approved by the State of New Mexico and the EPA before it can be disposed of at WIPP. Mr. Crapse stated when they first started developing the overall plan; they knew most of the boxed waste was a certain size. He stated the current TRUPACT II is set up for drum waste and a smaller box. He explained the shipping container for TRUPACT III looks more like a Sealand container.

CAB member Don Bridges asked if they would essentially be through with the legacy waste on Site. Mr. Crapse stated the goal presently is to do the 5,000 cubic meters by the end of 2012, with the remaining 200 to be done at sometime post 2010.

CAB member Judith Greene-McLeod asked if the very difficult waste was brought to the Site from the Mound and Los Alamos. Mr. Crapse stated that was brought to the Site back in the early 70s and has been stored on TRU Pad 1.

Mr. Rob Pope stated TRUPACT III approval from EPA comes from the Office of Radiation/Indoor Air that actually is the regulator for WIPP.

CAB member Rose Hayes asked what was the purpose of shipping the high-level waste from the Mound and Los Alamos to SRS. Mr. Crapse stated at one time they had what was referred to as a scrap recovery program where TRU waste would be stored for future disposition and the other material would go through the nuclear materials process.

CAB member Joe Ortaldo stated the next committee meeting would be held on June 22, 2010 at the Marriott in Augusta. He stated there are two recommendations up for approval. He stated the first recommendation deals with the System Plan, and the intent of the motion is to keep the public and the CAB informed of the status. He stated there was one addition made the previous day, which included a time for initiation. He then read the recommendations for consideration. CAB member Ed Burke moved for approval of the recommendation. CAB member John Snedeker seconded the motion. Mr. Terry Spears thanked the CAB for offering a recommendation on the System Plan. He stated it's representative of the heart of the liquid waste disposition process and program at SRS, and it's an important pulse for the CAB to monitor. He referred to the comments section, and suggested the addition of a sentence following the words "information becomes available," that reads, "in fact, the SRR contract requires that the Liquid Waste System Plan be revised and reissued annually." He then referred to the recommendations, and suggested considering the deletion of the term Rev. 15 from the recommendation. He referred to recommendation two, and suggested it read, "Semi-annual review of Salt and Sludge Processing Operations" as opposed to just "Semi-annual review of Salt Processing Operations." He stated that would include the DWPF operation as well as the base operations in the tank farms.

CAB member Kathe Golden stated Rev. 15 is included in recommendation four as well.

CAB member Rose Hayes stated the title contains not only Rev. 15, but Rev. 3 as well, and asked for clarification. CAB member Joe Ortaldo stated it's the revision of the recommendations, and they both would be removed.

CAB member Ed Burke moved the suggested changes be incorporated, and the motion was seconded. The motion passed unanimously by those members present.

CAB member Joe Ortaldo called for the vote regarding the recommendation. The vote passed unanimously. The following members absent during the vote: Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyve Vereen, and Alex Williams.

CAB member Art Domby referred to the recommendation regarding the increase loading of excess plutonium. He reviewed the recommendation in detail. He stated the recommendation presented contains minor edits, plus two substantive changes. He stated the ANSI standard was wrong, and should read 8.1 (1998). He referred to recommendation one, and stated it should include, "If DOE continues to pursue the 897 loading, please provide the CAB with an explanation of the technical, legal, and practical reasons for maintaining that level." He stated the clear thrust of the recommendation is the belief that the loading should increase. He outlined the recommendations in detail. CAB member Don Bridges moved to approve the recommendation. CAB member Manuel Bettencourt seconded the motion.

CAB member Kuppuswamy Jayaraman stated this is a technical issue, and he felt uncomfortable with the recommendation.

CAB member Joe Ortaldo stated the 2500 grams per cubic meter number meets the various criteria, and the goal is to get as much plutonium into the cans as early as possible to minimize both the time and cost of disposing of the plutonium if the decision is made to dispose of the plutonium through DWPF.

CAB member Manuel Bettencourt suggested sending a copy to the Blue Ribbon Panel.

CAB member Rose Hayes stated in addition to previously discussing the ANSI Standard, they also spoke of the unidentified IAEA Standard, and she requested someone from DOE identify what the IAEA Standard is.

CAB member Ed Burke stated he felt the CAB gives DOE adequate opportunity to present any technical reasons in defense of the standard they have.

CAB member Jerry Wadley referred to the first recommendation, line four, which reads "and saves millions of dollars." He stated no calculations were done. CAB member Art Domby stated he considered that a friendly clarification and struck the language.

The Facilitator stated recommendations are made to Assistant Secretary Triay through the Site Manager, and there is no need to "CC" her.

CAB member Manuel Bettencourt asked if they were going to copy to Blue Ribbon Panel or does that require a motion. CAB member Art Domby asked him to go ahead and make an amendment. CAB member Manuel Bettencourt moved a copy be sent to the Blue Ribbon Panel for their information and education. CAB member Ed Burke seconded the motion. The motion passed with 14 approving, one opposed and one abstention. CAB member Art Domby stated he abstained due to the fact he was the sponsor of the recommendation.

CAB member Art Domby called for a vote on the recommendation. The motion passed with 15 approving and one opposed. Those members absent during the vote are as follows: Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyye Vereen, and Alex Williams.

CAB member Joe Ortaldo invited comments or questions regarding the Waste Management Committee. CAB member Manuel Bettencourt asked if DOE has been asked to comment on the handout supplied by Mr. Tom Clements. CAB member Joe Ortaldo stated the handout referred to the repository, specifically Yucca Mountain, and the bottom line was Yucca Mountain was not big enough to handle all the defense waste or commercial spent fuel that's in the United States. He stated DOE was going to respond, and when the package is available, it would be addressed at a committee meeting.

~ Public Comments ~

Dr. Kuppuswamy Jayaraman stated while he is glad the recommendation was approved, the CAB is not here to save millions of dollars, and money is only a secondary factor in all the CAB recommendations. He stated the 897 grams per cubic meter was adopted under the impression that things were going to Yucca Mountain. He stated he is not an expert nuclear waste engineer or specialist, and does not want to play the role of a technical expert.

~ End of Public Comments ~

~ Lunch ~

Nuclear Materials Committee - Judith Greene-McLeod, Chair

CAB member Judith Greene-McLeod stated the next committee meeting would be on June 22, 2010 in Augusta. She stated at the May 4, 2010 meeting, there were presentations on depleted uranium oxide and the status of heavy water disposition. She stated there was also a project update by Bill Clark, and he would present that today.

Presentation - SRS NNSA Project Overview - Bill Clark, SRS-NNSA

Mr. Bill Clark stated it is a privilege to have the opportunity to speak to the CAB. He stated defense programs are half of what NNSA does, with the other half being the non-proliferation program.

Mr. Clark stated he would be discussing the mission very briefly, the non-proliferation program, and three projects at the Site, including the MOX facility, the waste solidification building, and PIT disassembly and conversion.

Mr. Clark stated the defense program mission takes the tritium reservoirs that go into the nuclear stockpile out, replaces the tritium in them, and returns them to the stockpile. He stated they also have the ability to extract tritium that is produced in the TVA reactors to replenish the stockpile.

Mr. Clark stated the nonproliferation mission at SRS is primarily focused on fissile materials disposition, specifically plutonium and highly enriched uranium. He stated the goal of the nonproliferation mission is to convert at least 34 metric tons of weapons grade plutonium into mixed oxide fuel that can be used in commercial nuclear power plants. He stated the way that's going to be accomplished is through PIT disassembly and conversion, PDC, and it is going to disassemble the weapons pits that SRS provided the plutonium for. He stated

as the stockpile continues to downsize, there are a lot of pits that are excess. They would be disassembled and the metal in them would be converted to oxide, which is sent to the MOX facility, which would turn it into fuel for commercial nuclear reactors, and then finally, the waste solidification building, which would take both the high-activity and the low-activity liquid waste streams, neutralize it, stabilize it, and make it ready for disposal.

Mr. Clark displayed a flowchart showing how the plutonium disposition paths are designed to work, and he explained it in detail.

CAB member Don Bridges asked what the approximate relative cost is of the three facilities previously addressed. Mr. Clark stated in round numbers, \$10 billion.

Mr. Clark stated construction of the MOX facility began in August of 2007, and continues to be on schedule to complete in late 2016, with the overall project being approximately 43 percent complete. He outlined some of the major achievements, including 3.6 million safe man hours, the placement of 73,000 cubic yards of structural concrete, with 13,000 tons of rebar being placed, 51,000 cubic yards of low strength concrete placed around the facility, the installation of 24 tanks, ten buildings fully constructed and available for use, and the near completion of the electrical substation. He stated the first shipments of the heating and ventilation and the piping supports have just recently arrived.

CAB member Madeleine Marshall asked where the power would come from. Mr. Clark stated it's off the grid. He stated the substation is an entry point, which steps the power down for the facilities.

Mr. Clark stated the MOX project has a significant impact on the local community, as over 4,500 contracts have been awarded to small businesses with a total value of over \$520 million out of the \$1.6 billion that has been expended. Mr. Clark stated the total cost of the project is \$4.815 billion, and through the end of FY 2009, almost \$1.6 billion, with the 2010 budget being \$560 million. He stated the 2011 request is whatever is needed up to \$505 million.

Mr. Clark stated they are going to begin the installation of piping in June, as well as the heating and ventilation systems.

Mr. Clark displayed several photographs, and provided explanations. He referred to the waste solidification building, which takes the liquid radioactive waste from the MOX facility as well as PDC, and makes it to where it can be safely disposed. He outlined the status of the construction of the Waste Solidification Building. He stated the base mat for the Waste Solidification Building was completed this past Saturday, with over 3,700 cubic concrete yards of concrete laid.

CAB member Don Bridges asked where the waste goes once it's solidified. Mr. Clark stated the low-activity waste might go to either the low-level waste barrel ground on Site or to the Nevada Test Site for disposal, while the high-activity waste would be TRU waste, and it would go to WIPP.

Mr. Clark stated there are 140 people that are working on the waste building, which is significantly less than the MOX facility. He stated through 2009, they had spent slightly more than \$74 million, and the 2010 budget for the project is approximately \$77 million, and the President's budget is approximately \$78.5 million in 2011.

Mr. Clark stated all long lead equipment would be received by October 2010, and in December of 2010, the walls of the facility would be completed. He displayed several photographs and explained them in detail.

Mr. Clark stated late last year, the Deputy Secretary approved NNSA and EM pursuing a conceptual design that would combine what used to be two separate facilities, the PIT Disassembly and Conversion Facility and the Plutonium Preparation Project. He stated they are in the process of developing a conceptual design for this combined facility inside K-Area. He stated the critical decision one would be made in mid-2011.

CAB member Don Bridges asked if NNSA would be the owner of the facility. Mr. Clark stated the Department is looking at the transfer of ownership of K-Area from EM to NNSA, and it would be done as a part of the overall approach to a combined facility.

CAB member Ed Burke stated that the justification for treating nuclear bomb material and turning it into mixed oxide fuel is not economical, and asked from an overall economic view if it is a net generator or a net cost. Mr. Clark stated to his recollection, converting the 34 metric tons of plutonium into power, approximately \$2 billion would be returned to the U.S. Treasury from the sale of the fuel. He stated the \$2 billion does not offset the \$5 billion spent to build the facility; however, when compared to other options, it is one of the more cost-effective options.

CAB member Rose Hayes asked what the lifecycle processing capability of the MOX facility is, and how it is characterized in terms of tonnage and types of material. Mr. Clark stated the MOX facility, as designed presently, would be capable of processing approximately 3.5 metric tons of plutonium per year into fuel assemblies, which would be between ten and 12 years. He stated there is no reason with appropriate maintenance that the MOX facility couldn't continue to operate well beyond that initial window.

CAB member Madeleine Marshall asked if in light of the signing of the new nuclear nonproliferation treaty by the President, could the possibility exist of more plutonium be coming to SRS, and if so, is that built into the System Plan. Mr. Clark stated at this point, there are the original 34 metric tons, with an additional nine metric tons that was declared as excess; however, they don't have NEPA coverage as of yet to include it in the program. He stated above that, it would be several years before they know how much additional material might be available for MOX.

CAB member Joe Ortaldo asked if the Hepa filters previously displayed would fit in either the TRUPAC 1 or TRUPAC 2. Mr. Clark asked Mr. Tom Cantey to address that question. Mr. Cantey stated the design of the facility uses several filters, and the large filters shown are the final filters before the exhaust goes up the stack. He stated at that point, it is anticipated that's going to be low-level waste and not TRU waste. He stated the only filters that might possibly be disposed of as TRU waste would be the Hepa filters that are on the processing closures, and they would fit in small containers. He stated, if necessary, filters could be compacted or cut up to fit into a disposal container.

CAB member Art Domby asked if there is any examination or consideration for the potential for off spec excess plutonium that is not enveloped by the design. Mr. Clark stated NNSA and EM are working very closely together on the disposal of the plutonium at SRS. He stated they believe it is the most cost effective to run as much of that material through the MOX facility as possible.

CAB member Manuel Bettencourt stated the CAB really appreciates the time and effort put forth by NNSA and CAB member Judith Greene-McLeod thanked Mr. Clark for his presentation.

CAB member Judith Greene-McLeod reviewed the recommendation the committee has. She stated there were two presentations given on May 4, 2010, one on depleted uranium oxide and the status of heavy water disposition.

She presented the recommendation regarding the Final Plan for Plutonium Disposition. She reviewed the background. She stated in December of 2003, the Defense Nuclear Facility Safety Board urged DOE to expedite the development of a complete, well-considered plan for the disposition of all excess plutonium to preclude unnecessary extended plutonium storage at SRS. She reviewed the comments, reference list, and recommendations. She stated the third paragraph above the comments, which refers to a plan due to Congress by February 1, 2002, and stated there was a plan submitted to Congress, which is in the CAB archives with a supplemental plan. She called for a motion to approve the recommendation. CAB member Rose Hayes moved to approve the recommendation. CAB member Ranowul Jzar seconded the motion.

CAB member Judith Greene-McLeod called for a vote on the recommendation. The motion passed unanimously. Those member absent during the vote were as follows: Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyye Vereen, and Alex Williams.

Strategic and Legacy Management Committee - Jerry Wadley, Chair

CAB member Jerry Wadley stated they had a Committee meeting on April 20, 2010 in Aiken, with presentations by Rich Olsen and Anna Murphy. He stated a week prior to the Committee meeting, he represented the SRS CAB at the SRS Energy Park Initiative Workshop in North Augusta.

He stated he reported yesterday that the Committee was going to close their four open recommendations. He stated CAB member Madeleine Marshall wanted to review one of them to confirm they were in compliance as far as meeting all the criteria.

CAB member Jerry Wadley referred to the recommendation concerning the SRS Site Public Tours. He stated there are a few minor corrections in the recommendations. He stated the first is on the introductory statements, which should read, "The Savannah River Site Citizens Advisory Board (SRS CAB) recommends that DOE:" He stated under number one, DOE should be removed, starting with the word "formulate." He stated the second recommendation should start with the word "consider," and include, "Consider privatizing and other methods of conducting tours." He stated recommendation number three should start with "Offer some tours on weekends." He stated recommendation number four should start with, "Offer an alternative registration method," and remove the words "be offered." He read the recommendations as amended. CAB member Jerry Wadley called for a motion to approve the recommendation. CAB member Joe Ortaldo moved to approve the recommendation. Judith Greene-McLeod seconded the motion.

CAB member Jerry Wadley called for the vote approving the recommendation. The motion passed unanimously. The following members were absent during the vote: Emile Bernard, Ric Castagna, Lee Harley-Fitts, Stan Howard, Cleveland Latimore, Denise Long, Skyye Vereen, and Alex Williams.

Presentation - SRS Performance Measures Update - Mr. Rich Olsen, DOE-SR

Mr. Rich Olsen introduced himself. He stated the Strategic and Legacy Management Committee last year strongly recommended Recommendation 265, establishing some performance measures that would be provided to the CAB on a quarterly basis, reflecting a snapshot of all EM clean processes at a high level.

He stated they have grouped approximately 30 performance measures into three categories; liquid waste, nuclear materials and Recovery Act. He stated each measure attempts to provide a complete perspective, including history, the present, and the end state target.

He displayed a liquid waste performance measure chart, and explained there are four major groupings for liquid waste, including canister activity, tank preparation and closure, salt solution processed, and curies stabilization. He explained the measures and the units of measure.

CAB member Jerry Wadley stated in looking at an average completion of an effort over 2009 through 2010, along with the end state, it looks like it's going to take a considerable length of time for completion. Mr. Olsen stated some of these are being ramped up, and they have just started. Mr. Patrick McGuire referred to the plutonium dissolved in H-Area for disposition, and stated currently the plutonium is being taken that's stored in K-Area and destructive evaluations are being performed so it can be safely stored for up to 50 years. He stated that's just a small number of containers that the destructive evaluations are being performed on. He stated they are planning on dispositioning approximately 400 to 500 kilograms of plutonium through FY2012, and the remaining five metric tons eventually need to be dispositioned, and he outlined options being explored. CAB member Jerry Wadley stated he doesn't know what the end date nor when they are going to ramp up. Mr. McGuire stated the baseline as it stands today is to disposition all the plutonium by the end of FY2019. He stated based on the recommendation and what Headquarters decides to do with the five metric tons is still to be decided. CAB member Jerry Wadley asked if a chart could be created to show where the ramp up might take place before the end state. Mr. McGuire stated it could be put in any type of metric. Mr. McGuire stated, as an example, they are completing the highly enriched uranium blend down program from all the non-irradiated highly enriched material that has been received from off site, which is resulting in approximately 47 metric tons of low enriched uranium. He stated when the spent fuel program begins at the end of this calendar year that would be the ramp up.

CAB member Manuel Bettencourt stated Dr. Triay was very pleased to see the metrics slides and requested a copy.

Mr. Olsen stated if they put a tentative end state date that might be helpful. Mr. Olsen stated end states assume a certain level of funding for the next 25 to 30 years. Mr. Olsen referred to FY 2010, and stated the annual target for canisters is 190, and that is based on a funding level also. He stated there is a balance between funding and what can be delivered. He stated they are on target for 2010. He stated there are 51 tanks on the Site that need to be closed; two have been closed, with 49 remaining. He stated there are seven stages to close a tank, and the tanks are in various stages of closure. He continued to explain the performance measures in detail.

CAB member Rose Hayes asked if they were referring to metric tons as opposed to number of containers.

Mr. Olsen stated metric tons have been converted into containers. He stated because of the public forum setting, they could not talk about metric tons due to security reasons. Mr. Patrick McGuire stated they want to provide as much information as possible, while balancing it from a security perspective. He stated if they start discussing kilograms and mass as opposed to containers and trailers, it could demonstrate how much material could be on the road at any given time. Mr. Olsen stated when you discuss the end state, you can use metric tons; however, when you're discussing the current year, you cannot discuss what you're processing through in the current year.

Mr. Olsen referred to the Recovery Act, and stated there were approximately 3,300 jobs saved or created at the present time. He stated there was \$1.6 dollars Recovery Act funding, with \$1.4 billion to SNRS as the contractor and \$200,000 to SRR as the contractor. He stated SNRS is at least halfway through their annual target, while SRR is not due to SRR was slower in ramping up their people. He stated if the money were not spent this year, it would roll into next year.

Mr. Olsen displayed a chart concerning TRU waste, and explained it in detail. He stated through 2010, they have dispositioned 6,500 cubic meters, and at the end of the Recovery Act, they would have dispositioned approximately 10,000 cubic meters. He stated over the next 20 years, additional TRU waste would be created as part of processing, and the end state reflects that. Mr. Olsen stated the target for DUO originally was to get 100 percent of the drums off site by the end of 2010, and year to date is 5,400 drums. He stated whether they could remove all 15,000 drums off site this year would be determined by future rulings previously discussed.

Mr. Olsen referred to soil and water remediation, D&D, and footprint reduction within the Recovery Act. He stated in soil remediation, there are four major measurements; characterization of remediation; remediation systems install, remediations completed, and ground plumes remediated. He discussed the end state target for the Recovery Act. He stated there are 18 facilities that are going to be D&D completed through the Recovery Act, as well as three reactors.

CAB member Don Bridges asked if these were the numbers quoted yesterday by Ms. Guevara. Ms. Guevara stated that was correct.

Mr. Olsen stated the footprint reduction is measured in acres, and 108,000 acres equates to 67 percent footprint reduction that is being tracked.

Mr. Olsen stated he received a lot of good input on how to display some information in the future. He invited further suggestions.

CAB member Kuppuswamy Jayaraman suggested providing a percentage as opposed to measurements such as containers, kilograms and cubic meters.

~ **Break** ~

Presentation - Update on Savannah River Recovery Act Program - Mr. Zack Smith, DOE-SR

Mr. Zack Smith introduced himself as the Program Director for ARRA at the Site. He stated he would touch on recent ARRA achievements as well as the path forward. He stated there are changes that have been made, but the concept has remained the same. He stated 800 cubic meters of TRU waste has been disposed of to date under ARRA, and slightly more than 6,000 cubic meters have been disposed of since May of 2001. He stated things are going very well at HWCTR, and the action memo was approved in March, with things moving forward for the

dome removal, reactor vessel removal, and the steam generator removal. He stated the evaporators are going now at P-Reactor. He stated in R-Reactor, they are beginning to start grouting, and they have awarded two contracts associated with the work there. He stated the fieldwork in M-Area is complete, with some minor disposal of waste to take place, and completion is expected in September.

CAB member Kuppuswamy Jayaraman asked if the rate of carrying the work out under the ARRA program is different than what would have normally been carried out. Mr. Smith stated in terms of the deactivation and decommissioning, as well as the TRU, it is accelerated due to the amount of funds being placed on those two activities. Mr. Smith stated the level of funding has allowed the acceleration. Ms. Karen Guevara stated over 3,000 workers have also been added as well as the dollars.

Mr. Smith stated if the evaluation and performance measurement plan is planned properly, and vertical knowledge is in place, the milestones and efforts are the same.

Mr. Smith stated they want to complete the environmental restoration and D&D, focusing on area completions. He stated they are trying to minimize partially completed jobs. He stated this does include the in-site decommissioning of three reactors, P, R, and HWCTR. He stated regarding the Pu 238, they wanted to dispose of all of it within the ARRA effort; however, after thorough studying, including risk factors, that will be changed and modified, but the concept will be the same.

Mr. Smith stated the Legacy TRU disposition of the final 200 cubic meters of very difficult waste is referred to a super stretch goal, meaning there is no funding shown for it, and no method for getting it done; however, if the contractor can figure out a way to generate savings within the program, then they can go after the super stretch goal.

Mr. Smith compared the April 2009 work scope with the 2010 work scope. He displayed a re-apportionment chart, and stated it displays how much money and emphasis is being placed on the TRU effort. He stated they are committed to getting as much TRU material off the Site and out to WIPP. He discussed the overall fee pool distribution, which includes three components, area closure, TRU, and waste management activities. He displayed a pre-decisional area closure fee pool distribution, which covers the three reactors, R-Area, P-Area and HWCTR, as well as site-wide ER. He stated the 67 percent footprint reduction is referred to the bow that wraps up the whole program. He displayed the TRU disposition acceleration fee pool distribution, and stated for every cubic meter that the contractor gets into WIPP they get a payment.

CAB member Don Bridges asked if WIPP is set up to handle just about anything they could deliver to them. Mr. Smith stated WIPP is not, and anything proposed for the TRU area is coordinated with the Carlsbad field office.

CAB member Joe Ortaldo asked what is limiting in the whole TRU shipment; is it facilities at WIPP or the transportation fleet or something else. Mr. Smith stated it's having the facilities available to open, repackage, evaluate what's in the containers and shipping. He stated there are operations currently at F, H, and E, and they would like to run more operations in F.

Mr. Smith summarized by outlining progress that has taken place, including the 800 cubic meters of TRU disposed of, reactor closure activity, and soil remediation. He stated they do have aggressive and manageable plans. He stated they are committed to footprint reduction and TRU.

CAB member Madeleine Marshall asked if the contracts were fixed price or cost plus. Mr. Smith stated when the contractor signed up for the contract, there's a portion of fee that's available in the contract. He stated they then come to an agreement on the milestones associated with that fee for them to earn it.

CAB member Kuppuswamy Jayaraman asked if the footprint reduction is an incident benefit of the work being performed. Mr. Smith stated that the work performed contributes to footprint reduction. Ms. Guevara stated the footprint reduction is the reduction of the operational footprint of the 310 square miles, or 67 percent of the portions of the Site, which were developed.

CAB member Ed Burke asked if the number of containers are reduced by 30 percent, is the bow also reduced by 30 percent. Mr. Smith stated that is correct, and the money would be shifted over to other activities.

CAB member Jerry Wadley thanked Mr. Olsen and Mr. Smith for their presentations. He stated there is a Committee meeting on June 8, 2010 in Augusta.

Facilities Disposition and Site Remediation Committee - Kuppuswamy Jayaraman, Chair

CAB member Kuppuswamy Jayaraman stated the Committee addresses the remediation of contaminated areas, especially ground and surface water contamination and issues related to the Federal Facility Agreement, risk management, risk assessment, regulatory processes and other cross-cutting issues that relate to environmental restoration. He stated the Committee is also concerned with deactivation and decommissioning actions taken. CAB member Kuppuswamy Jayaraman introduced his Vice Chair and the committee members.

He stated the Committee does not have any recommendations for discussion. He stated their last Committee meeting was held on April 20, 2010 in Aiken, which included three presentations, and the next Committee meeting will be on June 8, 2010 in Augusta.

Administrative Committee - Sarah Watson, Chair

CAB member Sarah Watson stated the Administrative Committee is responsible for compliance with and amendments to the Board's standard operating procedures, nominations and elections of Board officers and various avenues of public outreach. She stated the Administrative Committee met yesterday morning to specifically discuss the effort with the Speakers Bureau, and would report the four areas of concern at the next meeting. She stated they would list site tours as a priority as far as speaking. She stated she and CAB member Manuel Bettencourt would work on guidelines for volunteers for the Speakers Bureau, as well as review the CAB brochure so it is available for community events. She stated the *Board Beat* would be used as a handout as well.

She stated the online meetings would continue, and encouraged those present to use the e-meetings as it is a good tool. She stated they would continue to fine-tune efforts for logging in and the audio and video quality. She asked for feedback to assist in fine-tuning any issues.

She stated they would continue with the two meetings per day throughout the rest of the year, and would take into consideration any issues regarding the scheduling of meetings.

She stated the new issue of the *Board Beat* is available and invited everyone to read it, and share it with others in the community who may have interest.

She announced the CAB Retreat has been scheduled for October 28 through 30 in Aiken at Rose Hill Estates. She stated it would be two full days, Thursday and Friday, as well as a half-day on Saturday.

She reminded the CAB members of the attendance policy. She asked CAB members to communicate the inability to attend to the staff so they can make the appropriate adjustments.

She stated the membership drive has begun, and there is a request in the *Board Beat*.

CAB member Jerry Wadley asked if the member who was elected to the Board, and who decided not to serve, was going to be replaced. CAB member Sarah Watson stated that member would be included in the current membership drive.

~ Public Comments ~

Mr. Frank Redmond with Senator Johnny Isakson's office thanked the CAB for the opportunity to attend the committee and board meetings. He stated Senator Isakson asked him to express to the Board his thanks and appreciation for all their work.

~ End of Public Comments ~

Ms. Guevara stated there was a question posed regarding what the Site is doing with respect to the BP oil spill. She stated Jeannette Hyatt is present, and could speak to some things in terms of trying to reach out. She stated the Savannah River National Lab is talking to and making a proposal to the Coast Guard to deploy what's referred to a Bio Tiger technology.

Ms. Jeannette Hyatt, SRNS, stated she has some information as to what Fluor Corporation is doing under contract with BP, and they are on the ground presently. She stated they are hiring local unemployed workers in the affected counties to go to the shoreline and place the booms away from shore. She stated when the booms become saturated; they put them in drums and dispose of them. She stated they are also removing contaminated sand from beaches.

CAB member Rose Hayes stated in the past there have been requests for a copy of the report sent to Congress in 2007 demonstrating compliance with Public Law 107-107, Section 3155(C), and asked what the status of that request was. Mr. Patrick McGuire stated it was his understanding that was electronically submitted to the CAB within the last week. He stated there were an original submittal as well as a supplemental submittal. CAB member Rose Hayes was supplied a hardcopy.

CAB member Kuppuswamy Jayaraman recognized Erica Williams for the excellent job she has done. The Facilitator thanked Bill Brizes, Aaron Stevens, Clay Miller and Scott Doss for their work. She thanked everyone who made the meeting a success, including the presenters.

CAB member Manuel Bettencourt wished all a safe trip home.

Meeting adjourned at 4:00 p.m.